PostScript

LETTERS

Audit activity of trainees in the West of Scotland

Audit is becoming an increasingly important tool for use in medical practice under the auspices of clinical governance, and the expectation for trainees to participate in audit is increasing. The Royal College of Paediatrics and Child Health recommends that specialist registrar trainees perform yearly audit during their training and audits performed during Higher Specialist Training form part of the competency framework for specialty training.

One of the required characteristics of applicants for specialist registrar positions in the West of Scotland is participation in audit, and one of the desirable characteristics is active involvement in audit. It is therefore important that trainees are aware of the requirement of audit and are given enough time and support in which to carry it out.

Questionnaires were sent to all experienced senior house officers and specialist registrars in the West of Scotland training programme to assess audit activity.

Response rate was 83% in the specialist registrar group and 59% in the experienced SHO group.

In the specialist registrar group, 93% of respondents had performed an audit during their training although only 48% had completed an audit in each year of their training. Fifty two per cent of audits led to a change in practise, with only 16% being re-audited and therefore completing the audit cycle. Fifty two per cent of respondents graded the level of support given by senior staff to be less than satisfactory.

In the experienced SHO group, 92% of respondents had completed an audit with 53% actively involved in audit at the time of questioning. Forty two per cent of audits undertaken had led to a change in practice, with only 17% being re-audited. The most common reasons cited for those who had not performed an audit were insufficient time (100%) and lack of knowledge of a topic to audit (83%). Seventy six per cent of respondents felt that being given an audit topic and brief outline of how to carry this out at the beginning of a post would increase likelihood of completing an audit. Thirty per cent graded the level of support given by senior staff to be less than satisfactory.

Although the incidence of performing audit was high in the population questioned (92%), the incidence of completing the audit cycle was low (16%). Factors identified which may increase audit activity include increased support from senior staff, more time available for audit, and being allocated an audit topic and outline of how to carry this out at the beginning of a post.

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Hypothermia following fever

A 15 month old child presented to A&E with a temperature of 39.2℃. On examination she was fully conscious, tachycardic, and tachypnoeic. Examination revealed crepitations at the left base. A chest *x* ray confirmed the presence of a left lower lobe pneumonia. She was commenced on intravenous cefuroxime; initial results revealed white cell count 19.1×10^9/l (neutrophilia) and C reactive protein 126 mg/l.

On arrival to the ward she was found to be hypothermic (33.6℃). She had received paracetamol (15 mg/kg) and ibuprofen (5 mg/kg) in A&E. She had not been unduly exposed. This was her first presentation to hospital. In view of hypothermia with obvious sepsis a lumbar puncture was performed to rule out CNS involvement. This was entirely normal. Despite warming techniques she remained cool for the next 11 hours (fig 1).

Prolonged hypothermia provoked investigation of central causation. Thyroid function tests, cortisol, and computed tomography were normal. She recovered from her pneumonia and has been entirely well since.

In view of the temporal link between the antipyretics and the fall in temperature, it seems appropriate to consider causation. Both paracetamol and ibuprofen have previously been linked individually to hypothermia.[1 2] Logically, giving both together may have a summative effect on decreasing temperature. Currently there seems to be a great hurry to ''treat temperatures'', often using high doses of paracetamol combined with ibuprofen to reach the magic 37℃. However, the risks and benefits of fever should be weighed up. Fever induces host defence mechanisms preventing multiplication of organisms, but can also lead to febrile convulsions and increased cardiovascular demands.

Antipyretics are not without their problems and hypothermia may be one of these. Is hypothermia bad for you? Probably not in the short term, but generally we are not trying to induce it.

A recent case also describes hypothermia following a single dose of ibuprofen. This had a duration of four days.[3] Ibuprofen has a half life of 2 hours and is unlikely to have such a prolonged effect. Hypothermic sepsis is uncommon in paediatrics but must also be considered in both cases.[4] It is important to note that in neither case was a causal organism identified.

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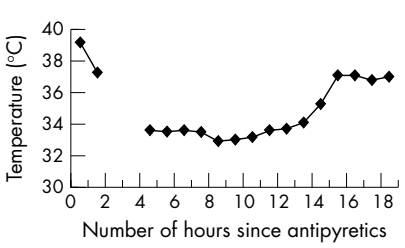

Figure 1 Temperature chart of the first hours following admission.

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Mosaic Down's syndrome prevalence in a complete population study

From 1 January 1997 to 31 December 2001 we performed a retrospective observational study on the incidence, accuracy of clinical diagnosis, and prevalence estimation of Down's syndrome in a well defined population of 1.7 million in Northern Ireland.[1]

A total of 208 postnatal cases of Down's syndrome were diagnosed: 197 trisomy (94.7%), 3 translocation (1.45%), and 8 mosaic cases (3.85%) (expected ratios 94% trisomy, 5% translocation, 1% mosaic[2]). In a population of 114 307 live births, a minimum prevalence of 167.9 per 100 000 (or 1 in 595 births) was calculated.

The detection rate of mosaic variants is higher than quoted rates of 1–3%. This may be accounted for by inclusion of newly diagnosed adult cases in our study, but mosaic variants often do not have dysmorphic features and may not be identified in studies.

Ninety per cent of trisomy and 100% of translocation cases were diagnosed on clinical features alone, with karyotyping carried out for diagnostic confirmation. This figure fell to 37.5% for mosaic cases ($p < 0.001$), confirming the difficulties with the clinical diagnosis of mosaic Down's syndrome, where few classical dysmorphic features are present.

The two mosaic cases diagnosed within seven days of life presented with simian creases, hypotonia, and characteristic facial features including epicanthic folds, up-slanting palpebral fissures, and protruding tongue. One patient had a sandal gap.

Three mosaic children were diagnosed after day 7. One clinically felt to be Noonan syndrome was diagnosed at 6 months. Another (diagnosed at 19 months) presented with developmental delay, without dysmorphic features, and the third had a sample sent at 7.5 years, as a check sample and not time of first diagnosis.

Three mosaic patients were diagnosed as adults. One was an inpatient at a regional specialist assessment centre for learning disabilities, and was previously known to have Down's syndrome. A second presented at 18 years of age and was educationally subnormal with no dysmorphic features. The

third was aged 54 years at diagnosis, presenting with short stature, mental retardation, and low white cell count with poor myeloid activity in the bone marrow, but with no dysmorphic features.

Our study concluded that the overall minimum prevalence is around 1 in 595 births. This is a slightly higher prevalence than previously documented, and may be a result of a higher incidence of mosaic cases, which are often without dysmorphic features and therefore more difficult to diagnose. Mosaic Down's syndrome should always be considered in those who are educationally subnormal, without a specific diagnosis.

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Randomised trial comparing prototype structures for clinical letters

A seven and a half minute consultation leaves a GP little time to extract the salient points from waffling clinical correspondence. Consultants' letters to GPs often contain minimal structure, yet GPs prefer letters containing lists of key problems and management issues.[1–3] We examined whether highly structured letters, using headings and bullet points, were preferred over problem/management list letters or unstructured prose.

A total of 210 GPs were each randomly allocated two of four prototype letters and asked to rate each letter on readability, structure, content, and overall feel. The GPs, and 76 consultants, were asked to rate the most important roles of letters from consultants to GPs.

Highly structured letters were significantly preferred in all aspects over letters with problem/management lists ($p = 0.001–0.05$) and these were preferred over prose letters ($p = 0.05$). There was no significant preference expressed about whether structured letters could contain a short prose summary. Consultants and GPs agreed that providing specialist advice and a management plan were vital aspects of consultants' letters. Consultants also felt the letter was vital to document information given to the patient and to form part of the hospital records. This dichotomy may explain why consultants' letters often do not meet GPs' expectations.

Clear concise communication is central to patient care. Structured letters are easier to extract information from, quicker to read,[2] and much preferred by GPs. Our low response rates (42% of GPs and 41% of consultants) leave open the possibility of response bias. However, our results showed high levels of significance and were in keeping with previous studies.[1 2]

Currently, discharge letters may be so poor that they can hinder continuity of care.[4] Letters can be improved with training and prompt sheets,[5] but these are expensive options. Fully structured letters provide an easy way to improve communication and reduce the likelihood of serious omission.

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Aspirin, Reye syndrome, Kawasaki disease, and allergies; a reconsideration of the links

Reye syndrome is very uncommon in Kawasaki disease patients despite the widespread use of aspirin. It is time to rethink the link between aspirin and Reye syndrome in the light of the rising prevalence of allergies for which the declining use of aspirin may be contributory.

The use of aspirin (ASA) has declined dramatically since the 1980s following reports linking its use to Reye syndrome. Since then, paracetamol has become the drug of choice for the treatment of fever or pain in children, and even in adults.[1]

Concurrently there has been an increase in the worldwide prevalence of the various allergic diseases, especially in industrialised countries.[2–5] It may not be too bold a postulate that this increase in allergic diseases might be due (at least in part) to the decreased use of ASA. ASA, which has an anti-inflammatory action, suppresses subclinical or clinical inflammation. Paracetamol in contrast, has no such anti-inflammatory effects.

The current recommendations for the management of children with Kawasaki disease include treatment with high dose aspirin in the acute phase, and low dose aspirin during the period of thrombocytosis.[6] For those with residual coronary problems, low dose aspirin is often given over an even longer term. In Japan alone, up to 200 000 children have received ASA for Kawasaki disease. Interestingly, only one case of Reye syndrome associated with Kawasaki disease has ever been reported, and only in the Japanese literature, giving an incidence of $<0.005\%$.[7]

It is perhaps time to rethink whether there is any causal link between ASA and Reye syndrome. The relation between declining ASA use and increasing prevalence of allergies should also be more extensively evaluated. Paediatricians may want to consider ASA in place of paracetamol as their first choice antipyretic/analgesic in children, especially for those with a significant family and background history of atopy. If our prescribing habits change, we might yet see a decline in the prevalence of allergic diseases.

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Research, more hassle than it's worth? A personal viewpoint

The scenario: You want to become an academic paediatrician. You undertake the necessary training and postgraduate examinations, and obtain a National Training Number (NTN). You then obtain a university-funded Clinical Lecturer post, at the end of your Specialist Registrar (SpR) ''core training''. Interestingly, there has been a marked 25% reduction in Clinical Lecturer posts in the past five years.[1] Despite the attached clinical commitments, the post would hopefully provide valuable laboratory based research, ultimately leading to a higher degree.

First problem: The post is in a different deanery and does not have an attached NTN. Over 15 months later, 69 extended letters (including multiple copies), and marked ''external'' pressure from both former and